

OFFICE CUBICLE DOOR

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application serial number 10/202,363, filed July 24, 2002, now abandoned.

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BACKGROUND OF THE INVENTION

1. Field of the Invention-- The present invention relates to accessories for use with "open-office" divider or partition systems, commonly called "office cubicles." More particularly, the present invention relates to temporary "doors" used to at least partially obstruct the doorway defined between office cubicle walls.
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2. Summary of Prior Art-- For decades, the "open-office" divider or partition arrangement, sometimes called cubicles or even a "cube farm," has been a popular way to subdivide office space in a flexible and economical manner. Such open-office arrangements generally are not popular with employees due to a lack of privacy (and
15 may be popular with employers for the same reason).

A principal factor leading to a feeling of a lack of privacy is the lack of doors in the doorways defined by office partition walls. For cost and other reasons, it is impractical to provide doors in most office cubicle situations. Nevertheless, there are times when an employee would enjoy at least partial privacy provided by a door of

5 some description.

Accordingly, there have been a number of attempts to satisfy the need for a “temporary” door or screen to partially obstruct the doorway or opening of an office cubicle. Such doors are disclosed in U.S. Patent Nos. 4,651,797 to *Lange*, 5,505,244

10 to *Thumann*; 5,875,597 to *Gingrich et al.*

A drawback common to these arrangements is that many of them are designed to be “permanently” attached to the cubicle walls using screws and similar means that would mar or damage the partition walls. Some prior-art screen devices secure to free standing posts instead of directly to the partition walls. One of the advantages of such

5 an arrangement, that an employee can carry his or her “door” with him or her and use it in any cubicle, is largely destroyed by these permanent or semi-permanent means of attachment.

An alternative to the “permanent mountings” is the use of magnets, suction cups, and hook and loop fasteners to secure the door in a more temporary fashion to the partition walls. Each of these methods works well only if the wall material is conducive to the means selected (e.g. magnets require magnetic surfaces, suction cups require smooth, non-porous surfaces, etc.).

A need exists, therefore, for a temporary screen or partition for use with open-office divider arrangements that is adaptable to be used with virtually any such arrangement.

SUMMARY OF THE INVENTION

It is a general object of the present invention to provide an improved screen or door for at least partially obstructing a doorway in an open-office divider arrangement or "office cubicle."

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This and other objects of the invention are accomplished by providing a screen assembly comprising a screen member formed of flexible laminar material.

A spring-loaded roll assembly retractably stores the screen member in a rolled fashion about its vertical axis. At least non-marring fastener is secured to the roll assembly for
10 releasably securing the roll assembly to the vertically extending edge of one of the upstanding walls of the office cubicle. A latch is operably associated with the screen member for selectively securing the screen member across the opening.

According to the preferred embodiment of the present invention, the non-
15 marring fastener is a c-clamp with a retaining screw and there are two such clamps associated with the roll assembly and one such clamp associated with the latch.

According to the preferred embodiment of the present invention, the screen member is formed of a translucent material, preferably a mesh fabric.

According to the preferred embodiment of the present invention, the latch

5 comprises a hook associated with the screen member and a loop associated with the latch clamp secured to the edge of the wall of the partition.

Other objects, features, and advantages of the present invention will become apparent with reference to the drawings and detailed description of the invention, which follow.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is an elevation view of a screen assembly according to the present invention deployed in a doorway between upstanding divider or partition walls.

5 Figure 2 is a plan view of the screen assembly of Figure 1.

Figure 3 is a plan view of a portion of the latch receiver, including the adjustable clamp, according to the present invention.

10 Figure 4 is an elevation view of an alternative embodiment of the present invention.

Figures 5, 6, 7 and 8 are elevation views of other non-marring fasteners for securing the screen assembly according to the present invention to a doorway.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the figures, and specifically to Figure 1, a screen assembly 11 according to the present invention is illustrated in deployed position between an opening or doorway defined by the edges of the upstanding walls 1, 3 of an open-office 5 divider arrangement or "cubicle." As can be seen, it is not a complete door, but only a screen or partition capable of partially obstructing the doorway or opening.

Referring to both Figures 1 and 2, screen assembly 11 comprises a roll assembly 13 that is secured to the edge of upstanding wall 3 by means of a pair of adjustable 10 clamps 21. A flexible, laminar screen member 15 is retractably (by conventional spring-bias) stored in a rolled fashion within the housing of roll assembly 13.

Roll assembly 13 is a cylindrical housing having a longitudinal slit or opening through which the free end of screen member 15 is passed. Screen member 15 is rolled 15 about a spring-biased axle 13A (in Figure 2) within the housing for retraction of screen 15 when no or insufficient tension is exerted on its free end. Axle 13A thus serves as the vertical axis of the roll assembly. In this embodiment, the screen member 15 is formed of a mesh fabric material that is translucent. Other materials may be selected

depending on the purpose of the screen (see Figure 4 and accompanying description).

As illustrated in Figure 1, screen member 15 can be pulled out of roll assembly 13 and across the doorway defined by the partition walls to provide a partial obstruction or privacy screen.

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A stiffener or frame member 17 is provided on the free end of screen member 15 to prevent the free end from being rolled into the housing of roll assembly 13, to provide a rigid or semi-rigid surface for the user to grasp while pulling screen 15 member from roll 13, and to prevent screen member from furling or drooping in the 5 deployed position. Frame member 17 preferably extends along the width of screen member 15. Screen member 15 is preferably 40 inches long and 36 inches wide. Roll assembly 13 is approximately one-half inch longer than the width of screen member 15 to accommodate the screen and the axle and its associated mechanisms.

10 A latch assembly 19 (described in greater detail in Figure 3) is coupled between the free end (frame 17) of screen member 15 and the edge of the wall opposing the edge to which the roll assembly 13 is secured. Latch 19 releasably secures screen member 15 in the deployed position across the doorway.

A pair of adjustable c-clamps 21 are disposed proximal the ends of roll assembly 13 for clamping or removably securing roll assembly 13 to the edge of wall 3. As shown in Figure 2, c-clamps are secured by a flange and screws to roll assembly 13.

5 C-clamps 21 are conventional in configuration and define a pair of opposed jaws 23 that clamp capture the edge of the wall between them. A retaining screw 25 is tightened against the edge of the wall to secure it between the jaws of the c-clamps. The preferred material for the jaw portion 23 of clamp 21 is a PVC plastic, which provides some resilience and flexibility to the clamp, making it less likely to mar a
10 finished surface. Thus, the screen assembly can be fitted to a variety of cubicle configurations having different wall thicknesses and walls made of different materials.

While c-clamps are illustrated, there are variations on the theme of adjustable clamps that can be considered to be within the scope of the invention as long as they achieve the purpose of removably securing portions of the screen assembly to the walls of the office partition or cubicle in a manner that can accommodate varying wall

5 thicknesses and materials and can do so in a generally non-marring fashion. For example, the clamps could be formed of spring metal, wherein deformation of the

clamp provides the force to secure the jaws of the clamp to the wall. The clamp could be spring-loaded or biased. The clamp could be constructed to employ a fitting like a hose clamp (a worm-drive tightening mechanism) to bring the jaws of the clamp together around the wall.

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Figure 3 is a plan view of a portion of latch assembly 19, illustrating the adjustable clamp portion 27, 29 and loop member 31. The clamp is of identical construction to those employed with roll assembly 13, but instead of being secured to the roll assembly, is provided with a horizontally oriented loop 31, which registers with 10 a hook (19 in Figure 2 and 119 in Figure 4) secured to the frame member (17 in Figures 1 and 2) on the screen member (15 in Figures 1 and 2) to releasably secure screen member 15 in the deployed position as shown in Figure 1.

Figure 4 illustrates an alternative embodiment 111 of the present invention that 15 is adapted to carry an opaque screen member 115 that bears a motivational or promotional slogan. This embodiment is less adapted to perform the privacy screening function, but is more for advertising or “banner” use.

Because the screen member 115 is an opaque material that is capable of being screen-printed (“CUBE”) (polyethylene and metallized mylar are possible materials), it is somewhat stronger and tougher than the mesh fabric embodiment. Accordingly, the roll assembly 113 comprises a wire frame that carries the rolled screen member 115

5 externally, or without a housing.

A pair of adjustable clamps 121 are disposed at the ends of the wire frame of roll assembly 113 and function identically to those described above with reference to Figures 1 and 2. The same latch assembly 119, comprising a hook on the screen member 115, 117 and a loop secured to the edge of the wall by a third adjustable clamp

5 (Figure 3) is employed to secure the screen assembly in the deployed position across the doorway of a cubicle. Because this embodiment is less adapted to perform the privacy function, the width (height) of screen member 115 is only 18 inches.

Figures 5, 6, 7, and 8 illustrate different ways of securing roll assembly 113 and

10 latch assembly 119 in the doorway of an office cubicle. Figure 5 illustrates the use of hook-and-loop fastener in which one of the “sides” 41 of the fastener material is secured using adhesive to flange 43 (which is in turn secured to the roll assembly or latch),

while the opposing side 45 of the fastener material can be removably adhered, using conventional pressure-sensitive adhesive, to the surface of the cubicle wall to removably secure the latch and roll assembly in the doorway.

5 Figure 6 illustrates an embodiment of the invention wherein a pair (one is shown) of sharp pins 47 is secured to the flange 43 (which again, in turn, is secured to the roll assembly and latch). In this embodiment, which is particularly adapted to fabric-covered cubicle walls, the pins are inserted into the padded, fabric covered cubicle wall to removably secure the latch and roll assembly in the doorway.

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Figure 7 shows an embodiment of the invention wherein an arrangement similar to a "toggle bolt" is used to secure the flange 43 (and roll assembly or latch) to the cubicle wall. A nylon bolt 51 extends through the flange 43 and a toggle assembly 53 is provided so that the toggle can be inserted into a gap or joint in the cubicle wall,

15 thereby securing the latch or roll assembly to the cubicle wall.

Figure 8 shows still another embodiment wherein a relatively soft plastic receptacle 61 (a conventional screw anchor), which is itself threaded 63, is inserted into

a gap or joint in the cubicle wall. A conventional wood or sheet metal screw or screws 65 are then used to secure the flanges 43 (and in turn the roll assembly and/or latch) to the upstanding walls of the cubicle arrangement.

- 5 All of the foregoing fasteners have in common that they are “non-marring,” meaning that they can be used to releasably and removably secure the roll assembly and latch (or a portion thereof) to the walls of an office cubicle arrangement without permanently disfiguring the walls. They are to be distinguished from arrangements that permanently deform or mar walls, such as “screw in” hook and eye arrangements
- 10 and the like. Moreover, the non-marring fastener must be capable of securing the roll assembly and the latch assembly to the vertical edge of the office cubicle wall, which means they must be capable of supporting the weight of the roll assembly and latch so that they do not slide down the edge of the wall. The non-marring fasteners must also be capable of withstanding the “pull” exerted in a horizontal direction by the spring-
- 15 loaded axle within the roll assembly.

In operation, roll assembly 13, 113 is secured to the vertical edge of one of the walls 1, 3 of the office divider arrangement using non-marring fasteners 21, 121.

Similarly, latch member 19, 119 is secured to the opposing vertical edge of walls 1, 3 using its non-marring fastener. Screen member 15, 115 then is withdrawn from roll assembly across the opening and is secured in the deployed position by registering the hook in the loop member. When it is desired to remove the screen assembly, the
5 process is simply reversed.

The present invention has a number of advantages over the prior art. Primarily, it permits the user to erect a privacy screen (or banner) for his or her cubicle quickly and efficiently and also to remove it (if management complains, or the owner moves
10 cubicles for instance). The present invention is adaptable to most any cubicle furniture, without regard to wall thickness or material. The present invention is also easily and inexpensively manufactured.

The invention has been described with reference to preferred embodiments thereof, it is thus not limited, but is susceptible to variation and modification without departing from the scope and spirit of the invention.